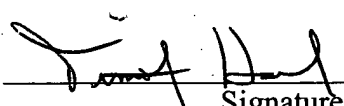
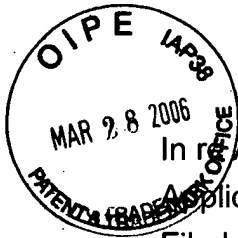


PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number 5800
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number 10/089,136	Filed December 23, 2003
	First Named Inventor Wolfgang HEIMBERG	
	Art Unit 1743	Examiner Natalia Levkovich
CUSTOMER NUMBER 39878		
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal</p> <p>The review is requested for the reasons(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p><input checked="" type="checkbox"/> I am an attorney or agent of record. Registration number 42,672</p> <div style="text-align: right;"> Signature</div> <div style="text-align: right;"> Timothy M. Hsieh Typed or printed name</div> <div style="text-align: right;"> (703) 917.0000 ext. 108 Telephone number</div> <div style="text-align: right;"> March 28, 2006 Date</div>		

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Wolfgang HEIMBERG et al. Confirmation No.: 2520
Application Number : 10/089,136
Filed : December 23, 2002
Title : DEVICE FOR CARRYING OUT OF CHEMICAL OR
BIOLOGICAL REACTIONS
TC/Art Unit : 1743
Examiner: : Natalia Levkovich

Docket No. : 0003.0038
Customer No. : 39878

MAIL STOP AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to the Pre-Appeal Brief Conference Pilot Program, and further to the Final Office Action dated December 29, 2005, Applicants submit this Pre-Appeal Brief Request for Review, along with a Notice of Appeal.

1. Status Of The Application

Claims 19-52 are currently pending and stand rejected.

2. Rejection Of Claims 19-52 Under 35 U.S.C § 103(a)

In the Office Action, the Examiner rejected claims 19-52 under 35 U.S.C. § 103(a) as being unpatentable over *Gordon et al.* (U.S. Patent No. 5,601,141) in view of *Yasuda* (U.S. Patent No. 6,093,370). Applicants submit that the Examiner failed to establish a prima facie case of obviousness in that: a) the cited references

do not teach or suggest all the elements of the claims; and b) there is no motivation to combine the references in the manner suggested by the Examiner.

a) The Combination Does not Teach or Suggest All of the Claim Elements

Applicants respectfully submit that the rejection of claims 19-52 does not establish a prima facie obviousness rejection because the cited references do not teach or suggest all of the elements in the claims. The instant application generally relates to a device for carrying out chemical or biological reactions that includes a reaction vessel receiving element. The reaction vessel receiving element can be configured to receive a microtiter plate, for example, a 96 well microtiter plate. The reaction vessel receiving element can further be divided into several segments to allow the microtiter plate to be used for multiple reactions.

Specifically, independent claim 19 recites a device for carrying out chemical or biological reactions including, among other things, a reaction vessel receiving element that "is divided into several segments, wherein each segment receives a portion of the microtiter plate." Independent claim 51 recites a device for carrying out chemical or biological reactions including, among other things, "a reaction vessel receiving element, wherein the reaction vessel receiving element is configured to receive one microtiter plate" where "the reaction vessel receiving element is divided into several segments."

In contrast, *Gordon et al.* disclose sixteen reaction vessel receiving elements, referred to as "sample plates" 14a. Each of the sixteen sample plates can receive one standard microtiter plate. (*Gordon et al.*, Fig. 1; col. 3, lines 31-32; col. 4, lines 3-6; and col. 4, lines 17-20.) This reference fails to disclose or suggest that any of the sixteen sample plates can be divided into segments. The Examiner then cited *Yasuda* as disclosing a "sample plate having means for individual heating of specific areas of a single substrate 13" at Figures 3-4 and col. 7, lines 5-60. (See, Office Action, p. 3, lines 6-8.) The alleged "sample plate" disclosed by *Yasuda*, however, is a DNA chip (*Yasuda*, col. 1, lines 10-27) having a plurality of target polynucleotide hybridization areas (*Id.*, col. 7, lines 2-6). The

DNA chip of *Yasuda* has dimensions of about 1 micrometer by 1 micrometer in size (*Id.*, col. 4, line 60), more than six orders of magnitude smaller than a standard microtiter plate which is about 5 inches by 3 inches. Moreover, the disclosed DNA chip uses single stranded-oligonucleotides (about one twenty five thousandth of an inch long) as probes to hybridize with a target polynucleotide (*Id.*, col. 4, line 61 to col. 5, line 2). Applicants submit that the DNA chip of *Yasuda* is not and does not suggest a reaction vessel receiving element for receiving a microtiter plate. Thus, neither *Gordon et al.* nor *Yasuda* disclose or suggest that the reaction vessel receiving element, which receives the microtiter plate, can be divided into several segments as recited in claims 19 and 51 of the present application.

Independent claim 19 further recites that the device for the carrying out of chemical or biological reactions include "two or more heating devices for heating the reaction vessel receiving element" and "each segment is assigned one of the heating devices, wherein the heating devices may be actuated independently of one another." *Gordon et al.* disclose multiple heating plates (14c in FIG. 1). However, each heating plate of *Gordon et al.* heats one reaction vessel receiving element 14a (*Gordon et al.*, col. 4, lines 3-4) and each module receives one standard microplate P (*Id.*, col. 3, lines 32-39). This reference fails to disclose or suggest that each reaction vessel receiving element can include two or more heating elements as recited in claim 19 of the present application. *Yasuda* discloses only a single heating device, divergent light 51 (*Yasuda*, col. 7, lines 23-24). Thus, neither *Gordon et al.* nor *Yasuda* disclose or suggest "two or more heating devices for heating the reaction vessel receiving element" and "each segment is assigned one of the heating devices, wherein the heating devices may be actuated independently of one another" as recited by claim 19 of the present application.

Claim 51 further recites "two or more cooling devices for cooling the reaction vessel receiving element" where each of the plurality of segments "is assigned one of the cooling devices, wherein the cooling devices may be actuated

independently of one another.” In the Office Action, the Examiner fails to even allege that one of the applied references teach or suggest this element. Moreover, *Gordon et al.* actually teach away from this element. *Gordon et al.* disclose a device with sixteen modules 14 where each module includes a sample plate 14a, a heating plate 14b, and a cooling plate 14c. (*Gordon et al.*, col. 4, lines 3-4; FIG. 1.) For cooling, the sixteen modules are arranged in four rows with each row having four modules. (*Id.*, col. 3, lines 42-46.) This reference discloses, however, that “cooling of these four modules is therefore not totally independent for each module.” (*Id.*, col. 3, lines 51-53). Thus, neither *Gordon et al.* nor *Yasuda* disclose or suggest “two or more cooling devices for cooling the reaction vessel receiving element” where each of the plurality of segments “is assigned one of the cooling devices, wherein the cooling devices may be actuated independently of one another” as recited by claim 51 of the present application.

b) The Prior Art Does Not Supply the Motivation to Combine

Applicants also respectfully submit that the rejection of claims 19-52 in the Office Action does not establish a prima facie obviousness rejection because the Examiner failed to find the requisite motivation to combine the references. Specifically, the Examiner does not identify any particular reason, supported by the applied references, why one of ordinary skill in the art at the time of the invention would have been motivated to change any of the sixteen reaction vessel receiving elements that each receives one standard microplate, as disclosed by *Gordon et al.*, to a reaction vessel receiving element that is segmented and receives one microplate.

Rather, the Examiner only generally alleges that the motivation for the proposed modification of the cited references is “to provide more flexibility (in terms of wider scalability), and, consequently, to improve commercial validity of the apparatus.” (Office Action, p. 3, lines 14-20). Applicants submit that neither of these reasons is supported anywhere in the applied references or even alleged to be supported in the references by the Examiner. Accordingly, these reasons cannot be used to support the instant rejection.

3. **CONCLUSION**

In view of the foregoing, Applicants respectfully submit that claims 19 and 51 are allowable, and that claims 20-50 and 52 are allowable at least by virtue of their dependency from allowable claims 19 and 50, respectively.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 50-2961.

Respectfully submitted,

Dated: March 28, 2006

By: 

Timothy M. Hsieh
Reg. No. 42,672